

Figure 1. Wavelength protection in a ring network

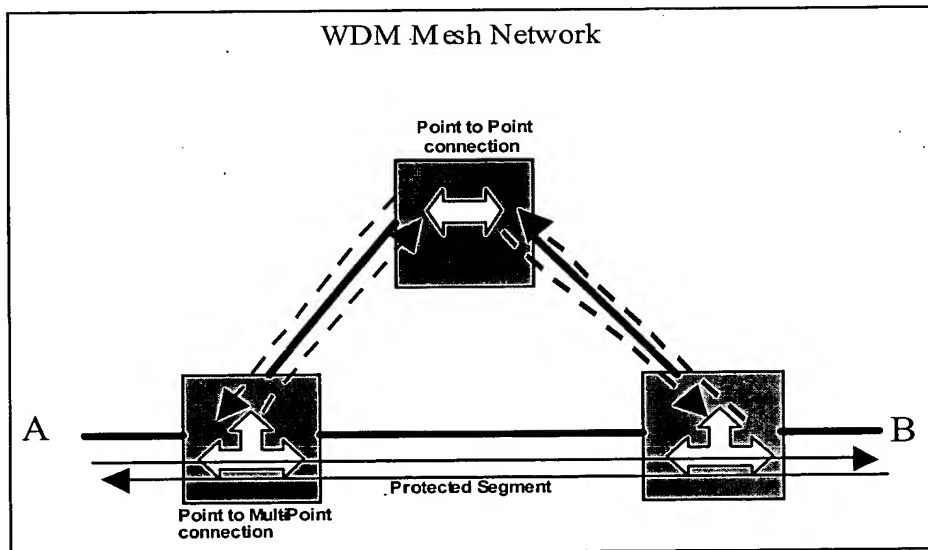


Figure 2. Connections in a 1+1 segment protected lightpath.

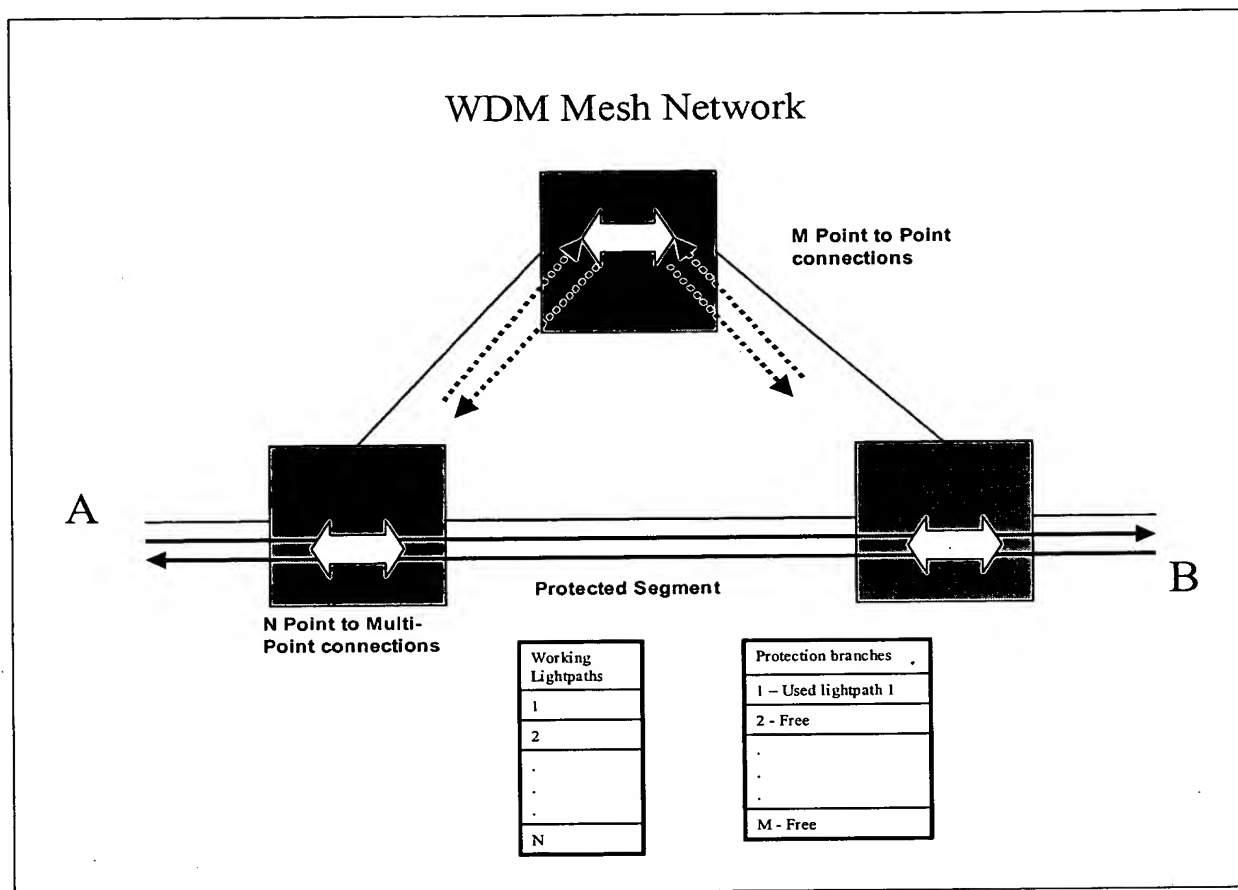


Figure 3. N+M segment protection.

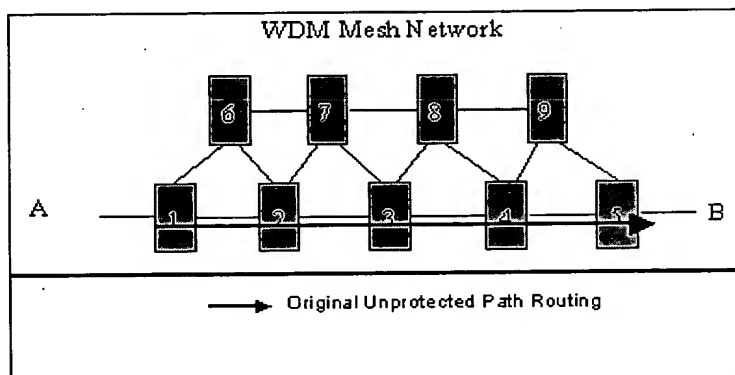


Figure 4. Example #1, Original Lightpath Routing

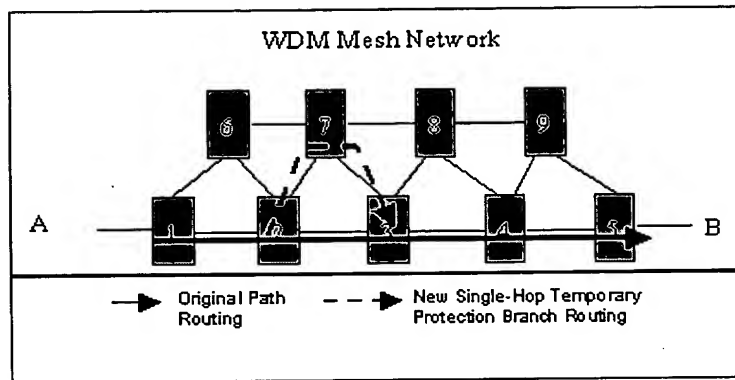


Figure 5. Add New Single-Hop Routing Change as Protection Branch

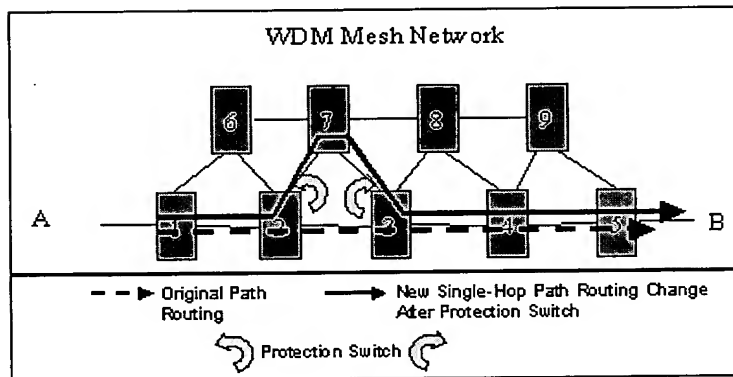


Figure 6. Roll Working Path onto New Lightpath Routing

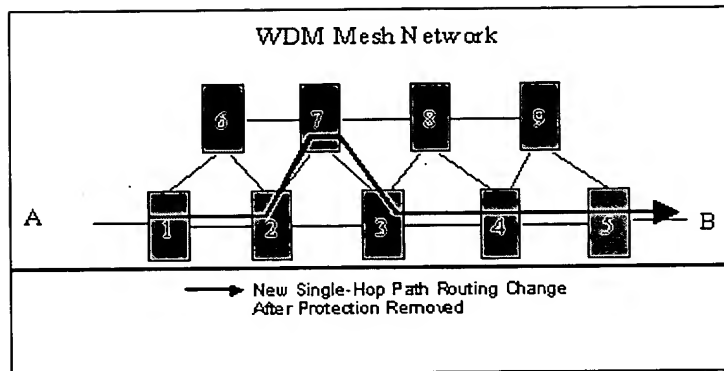


Figure 7. New Single-Hop Lightpath Routing Change Complete

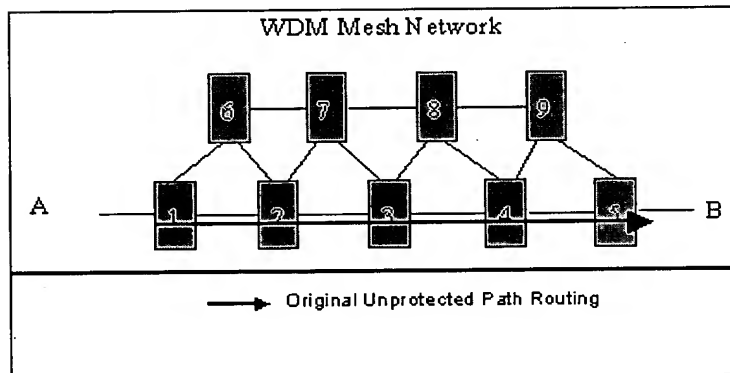


Figure 8. Example #2, Original Routing of a Multi-Hop Lightpath

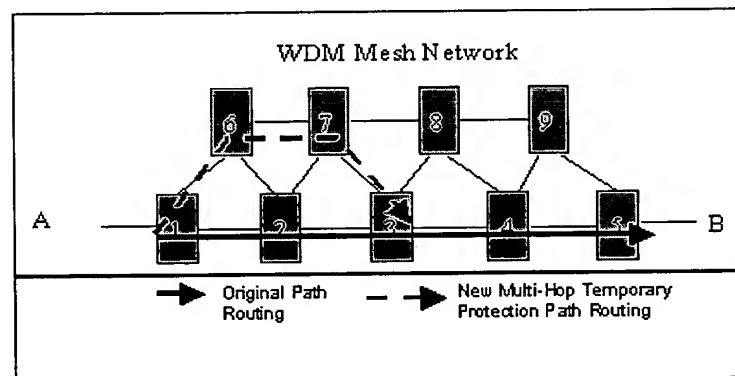


Figure 9. Add New Multi-Hop Routing Change as Protection Branch

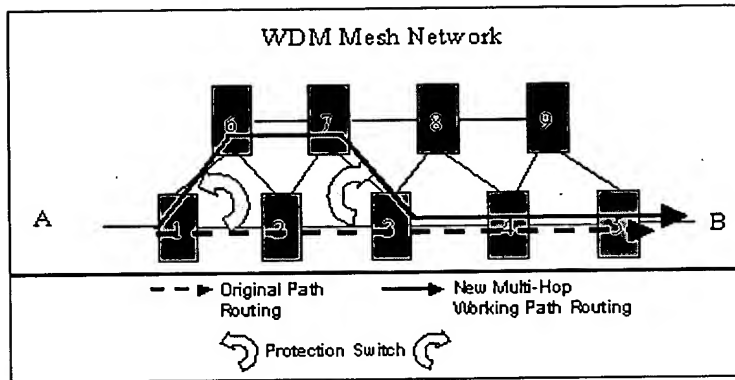


Figure 10. Roll Working Path onto New Lightpath Routing

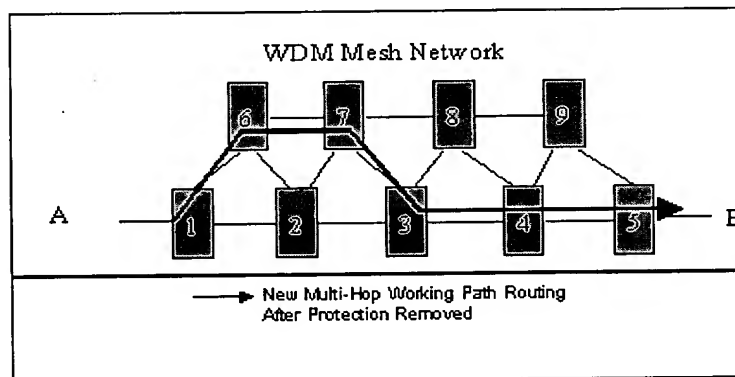


Figure 11. New Multi-Hop Lightpath Routing Change Complete

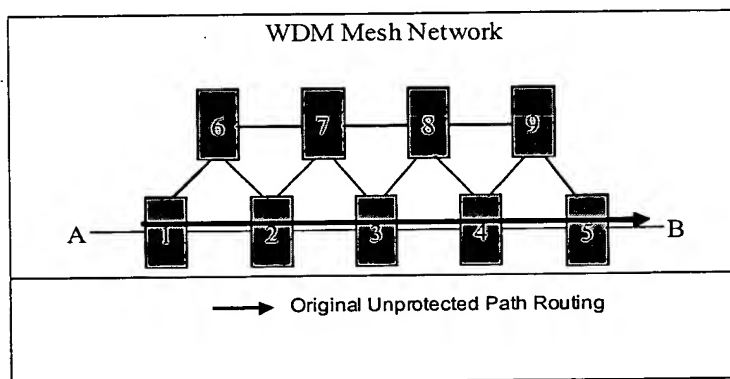


Figure 12. Example #3, Original Lightpath Routing

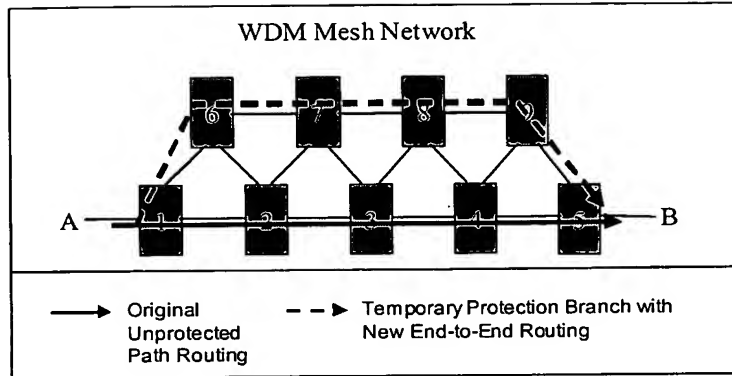


Figure 13. Add New End-to-End Routing Change as Protection Branch

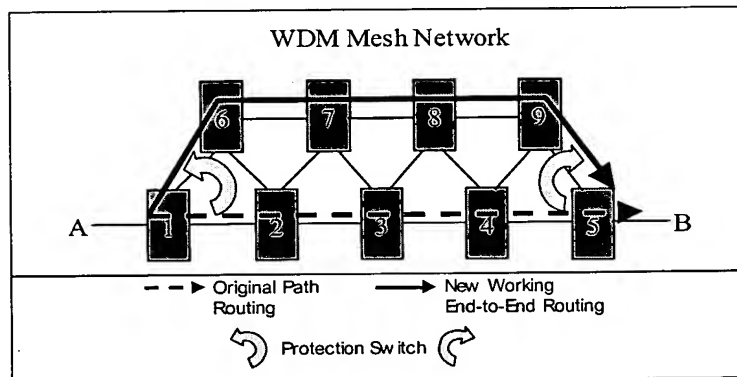


Figure 14. Roll Working Path onto New Lightpath Routing

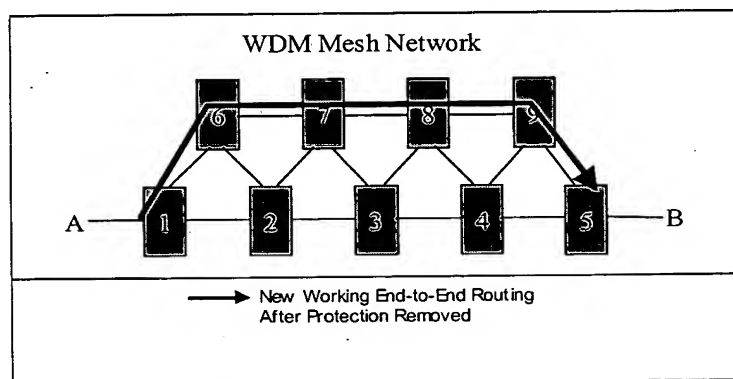


Figure 15. New End-to-End Lightpath Routing Change Complete

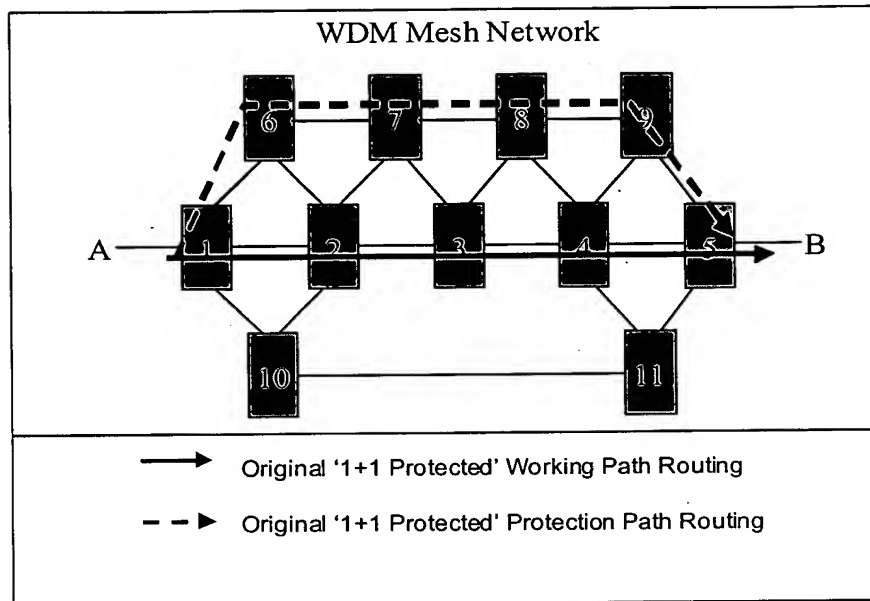


Figure 16. Example #4, Original Routing of '1+1 Protected Lightpath

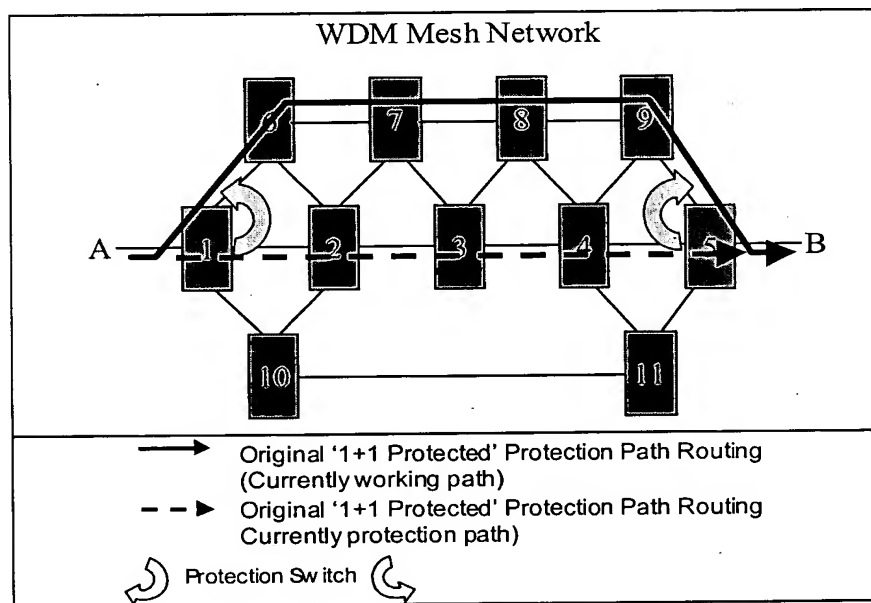


Figure 17. Roll working path off original routing

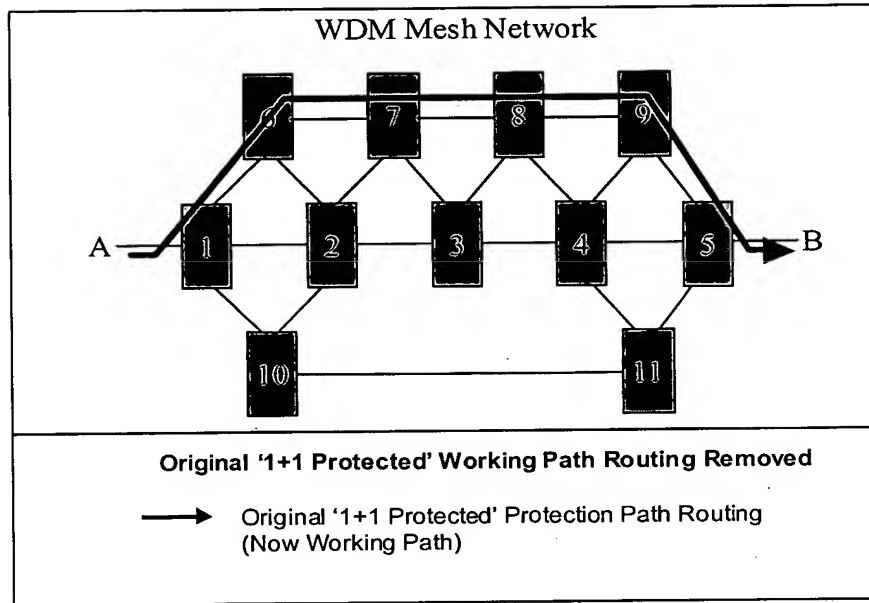


Figure 18. Remove protection branch (original working path routing).

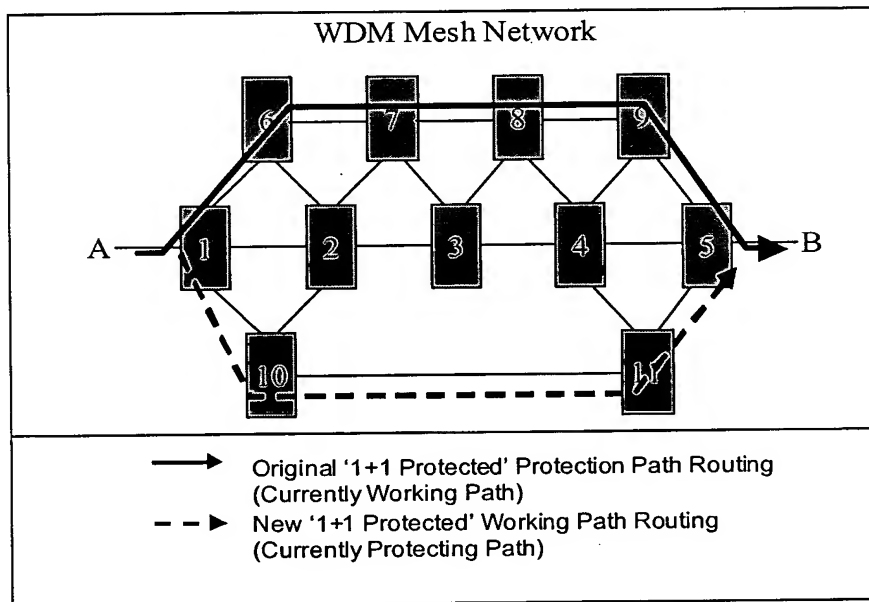


Figure 19. Add New End-to-End Routing Change as Protection Branch

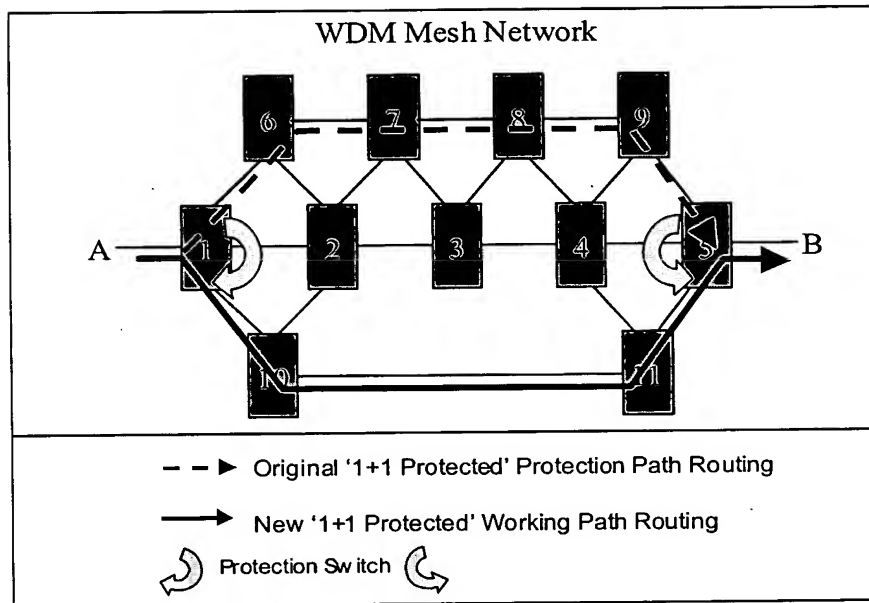


Figure 20. Roll Working Path onto New Lightpath Routing

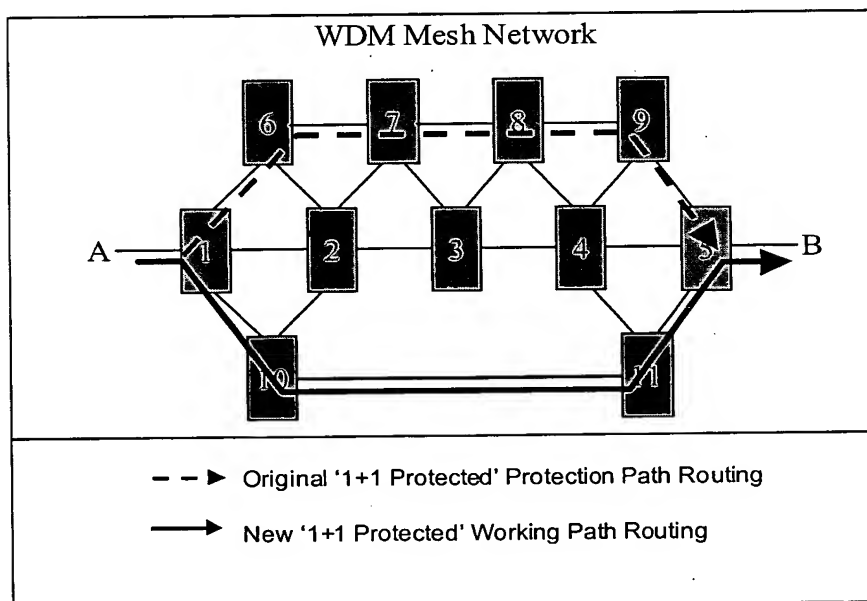


Figure 21. New End-to-End Lightpath Routing Change Complete

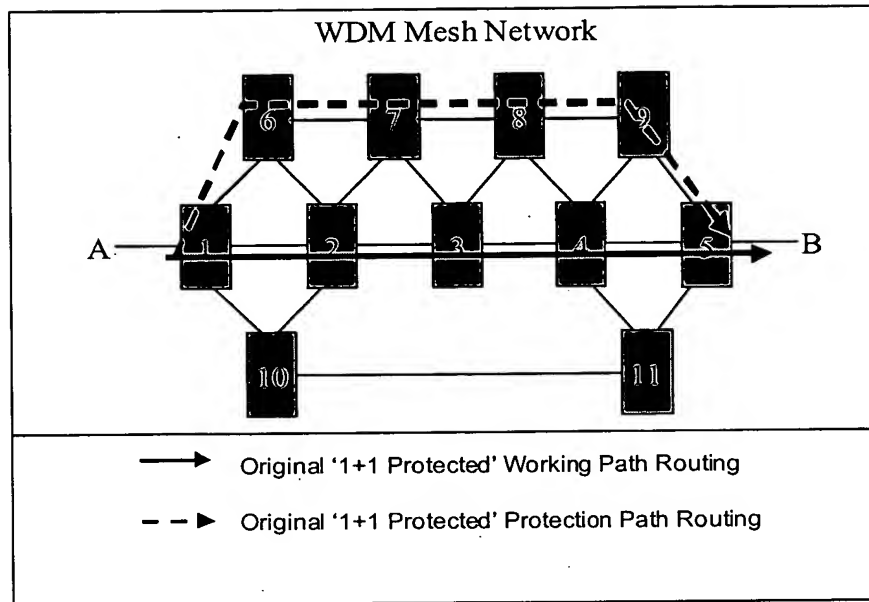


Figure 22. Example #5, Original Lightpath Routing

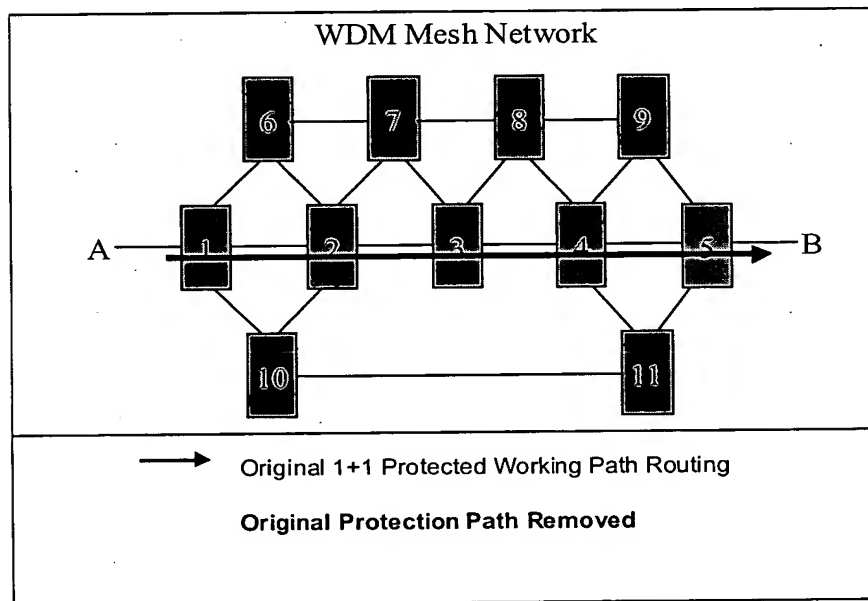


Figure 23. Remove original protection branch

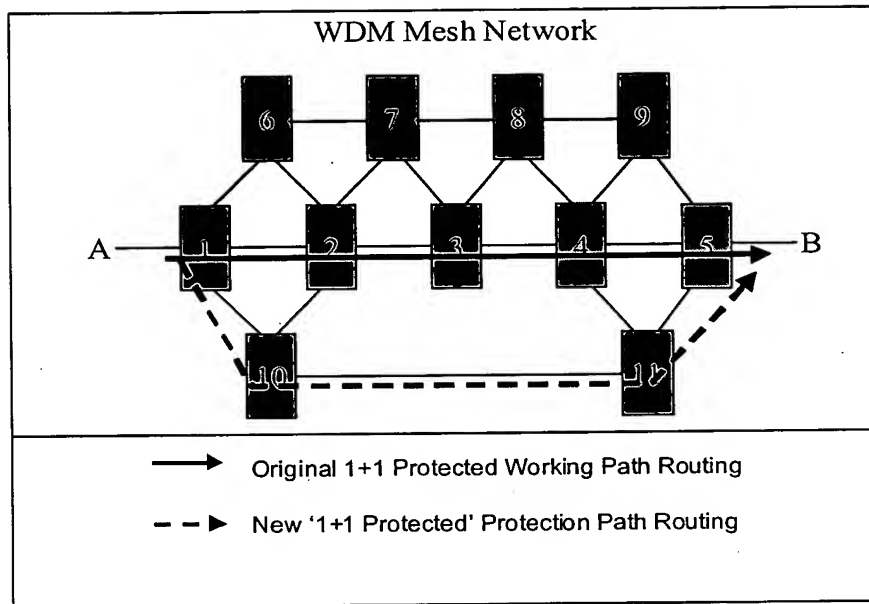


Figure 24. Add new protection routing as a protection branch

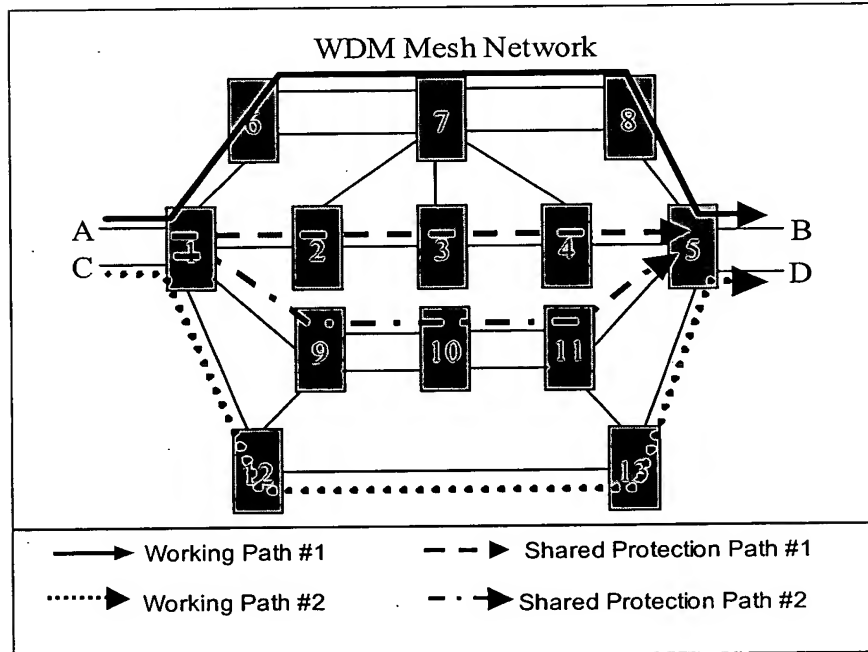


Figure 25. Example #6, Original M x N lightpath routing

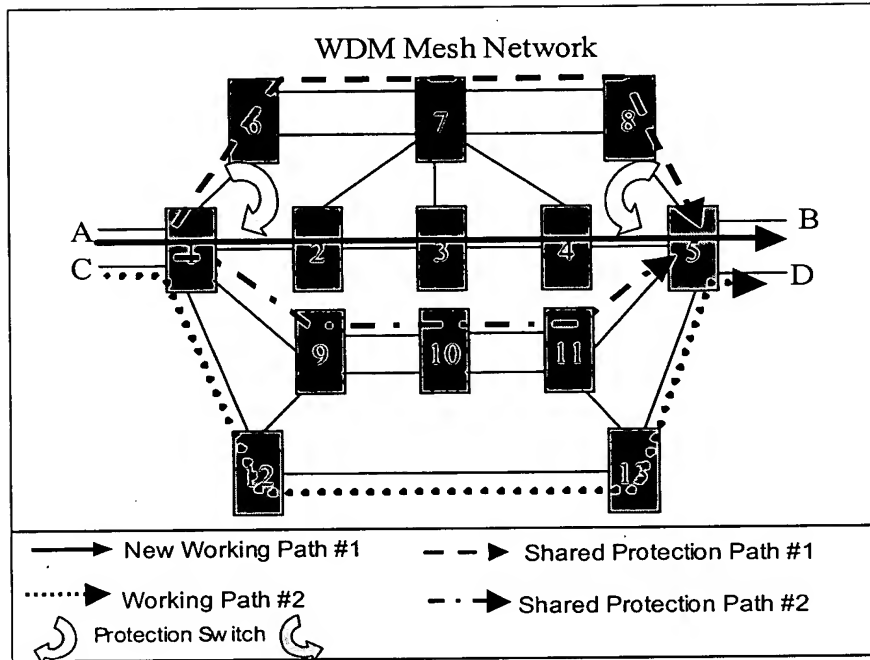


Figure 26. Roll working path off the original working Path#1 routing

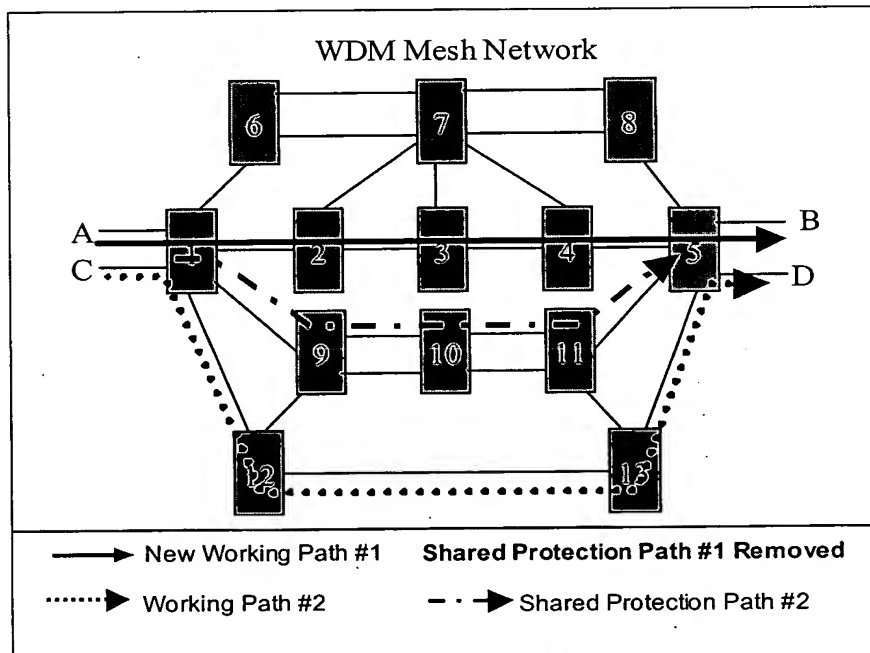


Figure 27. Remove original working Path#1 routing

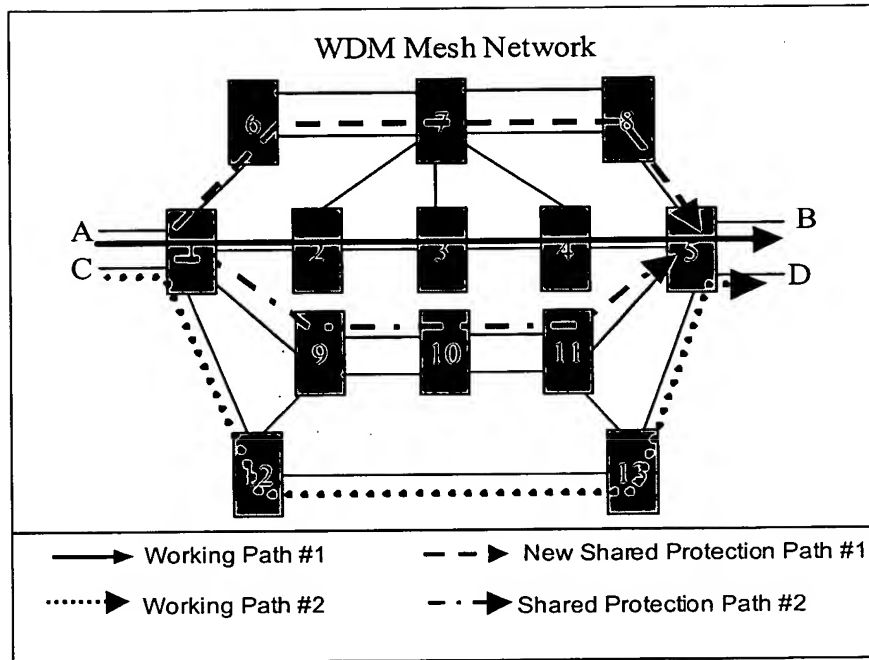


Figure 28. Add new end-to-end routing change as protection branch

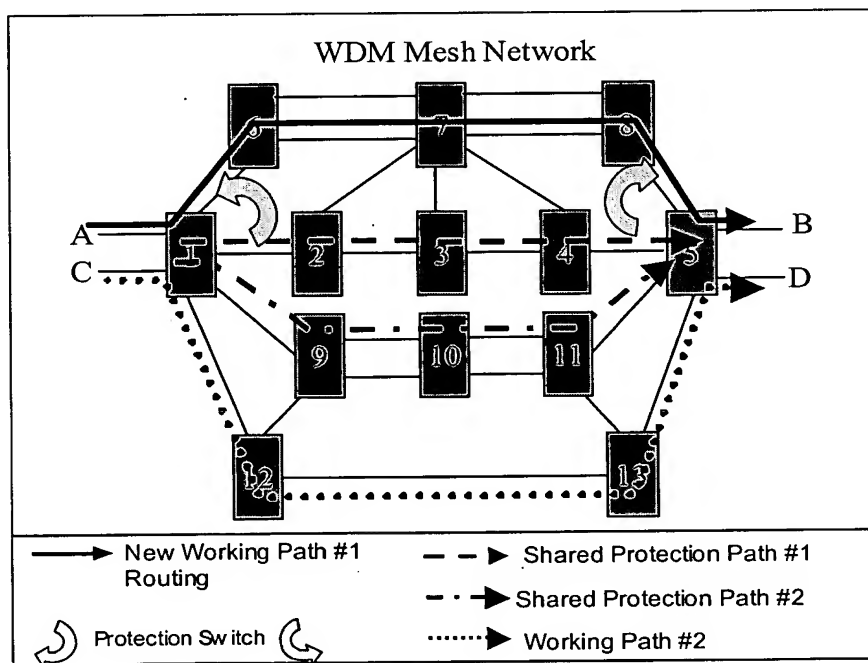


Figure 29. Roll working path onto new lightpath routing

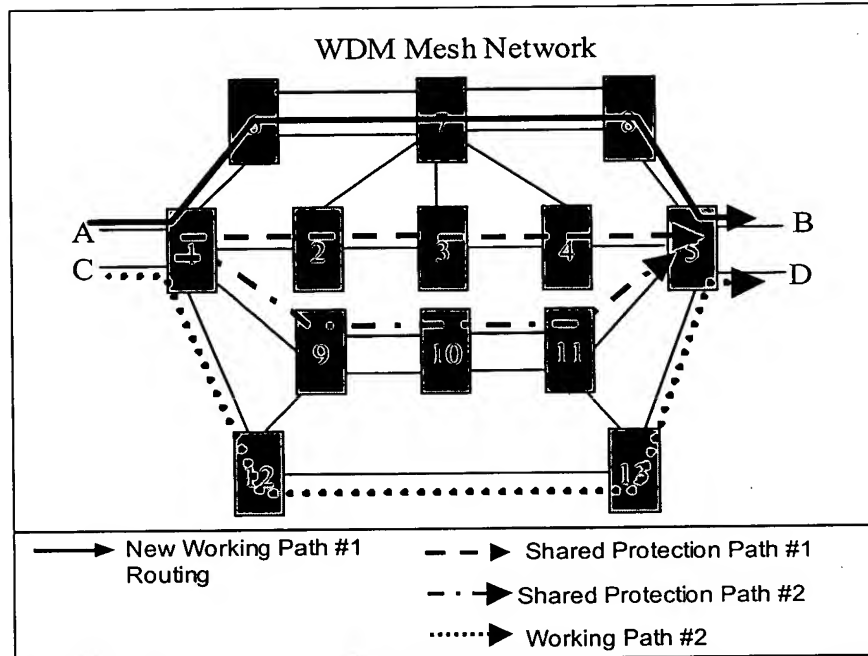


Figure 30. New working Path#1 lightpath routing change complete

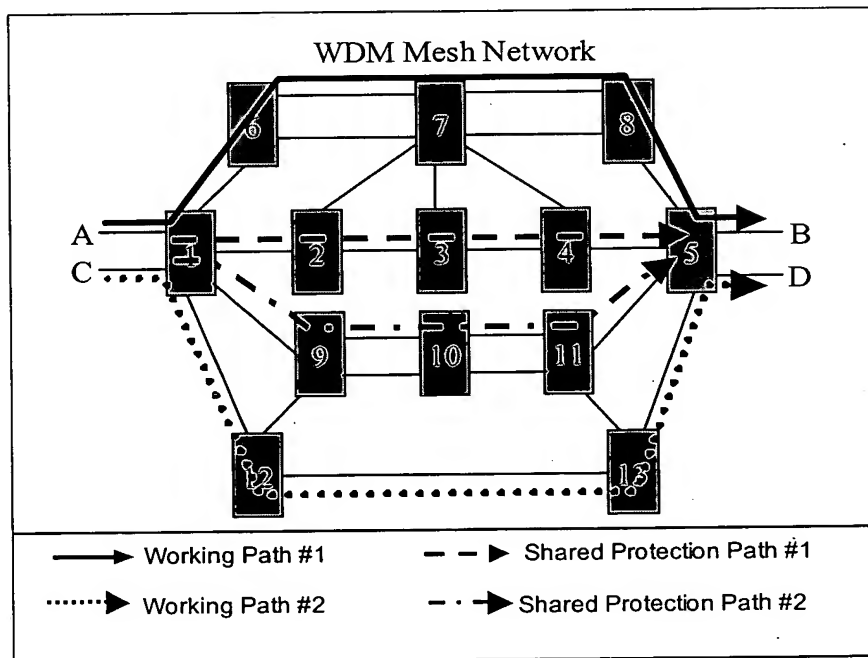


Figure 31. Example #7, Original M x N Lightpath Routing

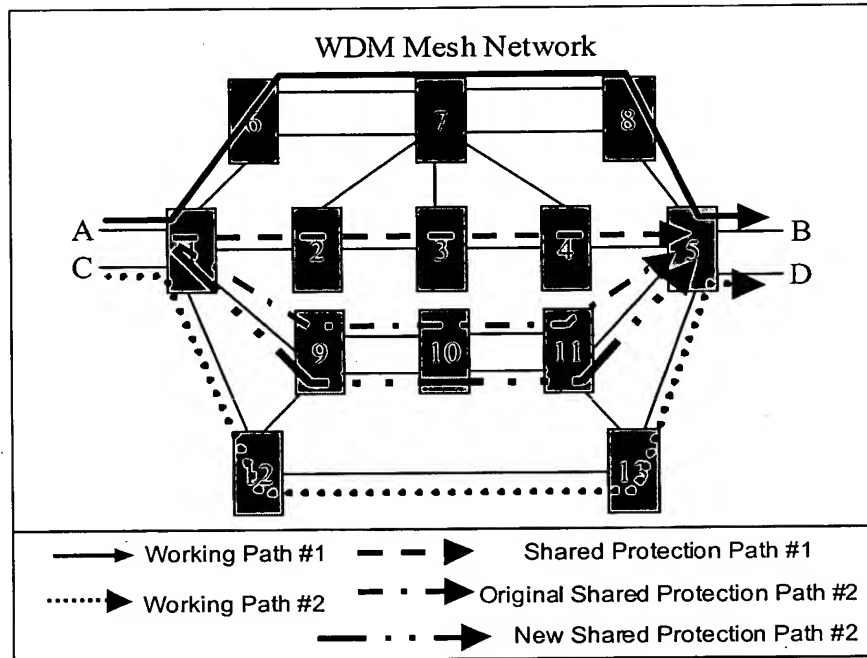


Figure 32. Add New Shared Protection Path#2 Routing as Third Protection Path

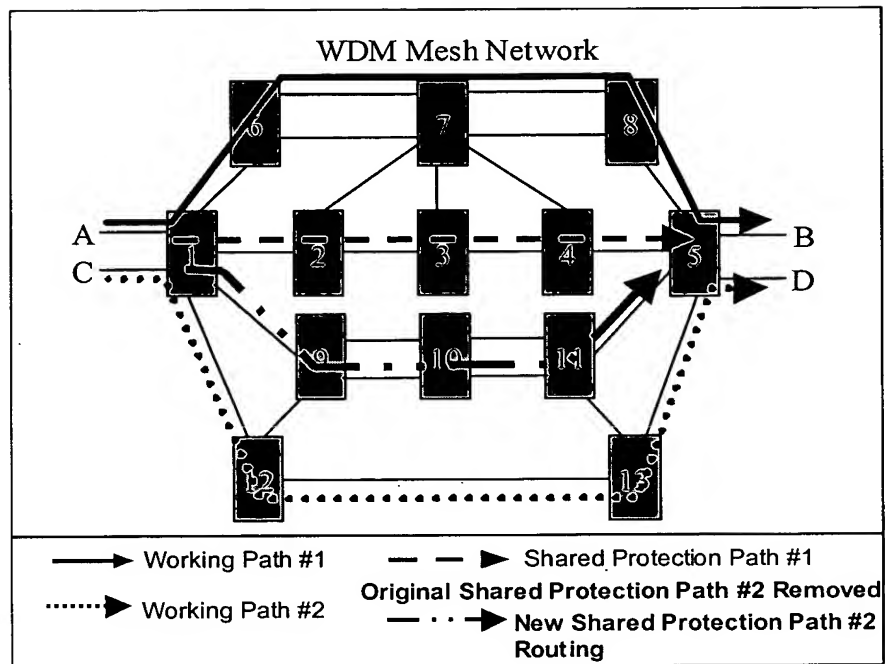


Figure 33. Remove Original Shared Protection Path#2 Routing

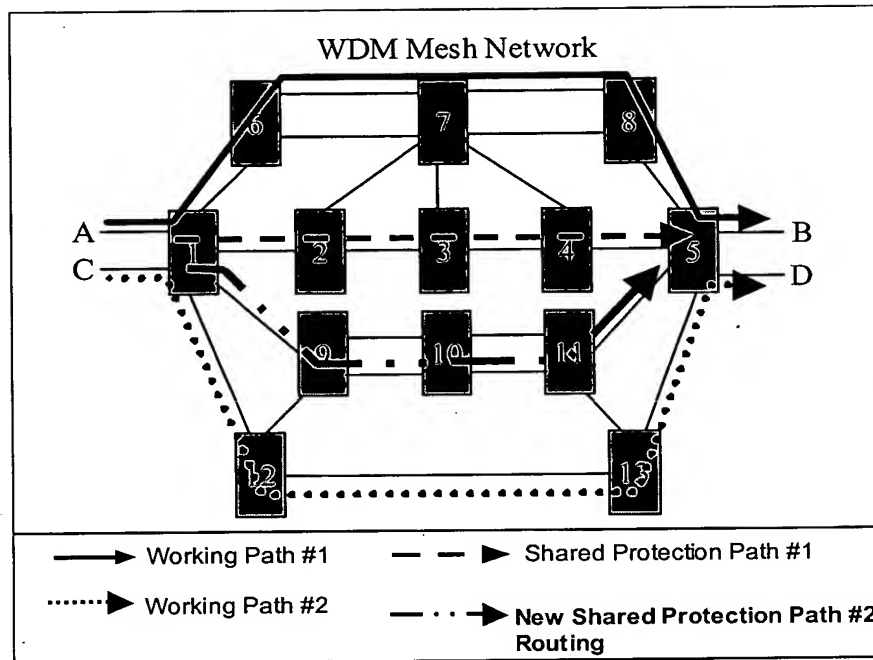


Figure 34. New Shared Protection Path #2 Lightpath Routing Change Complete